

Generative AI in Medicine and Healthcare: Promises, Opportunities and Challenges

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Abstract

Generative AI (artificial intelligence) refers to algorithms and models, such as OpenAI's ChatGPT, that can be prompted to generate various types of content. In this narrative review, we present a selection of representative examples of generative AI applications in medicine and healthcare. We then briefly discuss some associated issues, such as trust, veracity, clinical safety and reliability, privacy, copyrights, ownership, and opportunities, e.g., AI-driven conversational user interfaces for friendlier human-computer interaction. We conclude that generative AI will play an increasingly important role in medicine and healthcare as it further evolves and gets better tailored to the unique settings and requirements of the medical domain and as the laws, policies and regulatory frameworks surrounding its use start taking shape.